



City and County of the City of Chester.

ANNUAL REPORT

TO THE MAYOR, ALDERMEN AND
COUNCILLORS OF THE CITY AND
COUNTY OF THE CITY OF CHESTER

ON THE

HEALTH OF THE CITY
IN 1927,

BY

D. RENNET, M.B.E., M.D., D.P.H.,

Medical Officer of Health.

Taplen & Paddock, Printers, Chester.

Public Health Committee (1926-27).

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<i>Sanitary Labourer</i>	-	-	-	F. VICKERS.
<i>Rat Catcher</i>	-	-	-	W. LANGRICK.

† Certificate of the Royal Sanitary Institute for Meat and Food Inspectors.

§ Certificate of Liverpool University for Meat and Food Inspectors.

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City and County of the City of Chester.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH

For the Year 1927.

1. Area (acres)	...	...	...	...	...	2862
Population (census 1921)	...	...	...	...	...	40794
Population (estimated, 1927)	...	...	...	...	...	42200
Number of inhabited houses (1921)	...	...	...	...	...	8447
Number of inhabited houses (1927)	...	...	...	...	...	9063
Number of families or separate occupiers (1921)	...	...	...	...	...	8890
Rateable value	...	...	...	...	...	£256,279
Sum represented by a penny rate	...	...	...	...	...	£962

2. The Registrar General's estimate of our population at the middle of 1927 is 42,030 — an increase of 320 over 1926, compared with 40 in the previous year. As the births exceed deaths by 171, immigration has exceeded emigration by 149. On making the necessary corrections for Chester residents in institutions outside our area, and of non-residents within the City, the population figure comes to 42,200—287 more than for 1926. The fall in the natural increase of population, births in excess of deaths, due to the rapid fall in the birth-rate, is very marked.

Vital Statistics.

EXTRACTS FROM VITAL STATISTICS FOR THE YEAR.

		Total.	Male.	Female.		
Births	Legitimate	...	660	...	354	306
	Illegitimate	...	37	...	17	20
					Birth-rate	16.51
Deaths	...	...	526	...	crude death-rate	12.46
	...	...	...	...	corrected	11.86
Number of women dying in or in consequence of childbirth		...	...	...	from sepsis	1.0
		...	...	...	from other causes	0.0

Deaths of Infants under 1 year of age per 1,000 births—

Legitimate, 63.6; illegitimate, 189.1					Total	...	70.30
Deaths from Measles (all ages)	...	...	...	...	...	...	0.00
„ „ Whooping Cough (all ages)	...	...	...	...	...	...	0.30
Diarrhoea under 2 years of age	...	...	...	...	...	...	0.04
Deaths from Tuberculosis (all forms)	...	...	...	...	...	...	1.06
„ „ Diphtheria (all ages)	...	...	...	...	...	...	0.02
„ „ Scarlet Fever (all ages)	...	...	...	...	...	...	0.00

The Birth-rate. — The births registered in the City numbered 764, but, correcting this figure for births not belonging to Chester and for those taking place outside but of Chester parentage, the net births become 697, which is equivalent to a birth-rate of 16.51. This is a very considerable fall from last year, when it was 19.94. The fall is taking place generally, as the following table shows :—

BIRTH-RATES.

	England and Wales.		Smaller Towns.		Chester.	
1924	...	18.8	...	18.9	...	19.46
1925	...	18.3	...	18.3	...	20.30
1926	...	17.8	...	17.6	...	19.94
1927	...	16.7	...	16.4	...	16.51

Of the 697 births, 37 were illegitimate or 5.3 per cent. the same as last year. In 1925 it was 4.5.

The Death-rate.—Deaths of Chester residents numbered 526 during the year — 20 less than last year, and 40 less than in 1925. This is equivalent to a crude death-rate of 12.46, which, when corrected for age and sex distribution, becomes 11.86.

The death-rates for England and Wales and the smaller towns are given in the following table, together with the rate for Chester :—

DEATH-RATES.

	England and Wales.		Smaller Towns.		Chester.	
1924	...	12.2	...	11.2	...	13.04 (corrected)
1925	...	12.2	...	11.2	...	12.87 („)
1926	...	11.6	...	10.6	...	12.37 („)
1927	...	12.3	...	11.3	...	11.86 („)

The rates for England and Wales and also for the small towns are virtually as they were in 1924. Chester rate has fallen 9 per cent. The rate is the lowest we have yet recorded.

Causes of Death.--The chief causes of death were in the order named, organic heart disease (59), cancer (56), bronchitis (51), tuberculosis of the lungs (43), pneumonia (41), influenza (18). The first five of those causes accounted for 250 deaths, or 47.5 per cent. of the whole. An epidemic of whooping cough in the beginning of the year increased the deaths from that cause by 11, and there were 10 more deaths from influenza than in 1926. There were small decreases in the majority of causes, *e.g.*, measles, 8; diarrhœa, 8; Bright's disease, 6; congenital defects, 5. Comparative death-rates for some of the infectious diseases are tabulated below :—

	Death Rates per 1000 population.						Rate per 1000 Births.	
	Enteric Fever.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria	Influenza.	Diarrhœa under 2 years.	Infant death rate.
England & Wales	0'01	0'09	0'01	0'09	0'07	0'57	6'3	69
County Boroughs	0'01	0'12	0'01	0'10	0'08	0'49	8'3	71
Smaller Towns ...	0'01	0'07	0'01	0'08	0'05	0'58	5'0	68
Chester	0'00	0'00	0'00	0'30	0'02	0'42	2'8	70

With the exception of whooping cough, of which there was a severe epidemic in the early part of the year, the rates are lower for Chester than for the other sections of the country.

Infant Death-rate.—There were 49 deaths of children under one year of age, being 18 fewer than in 1926. The equivalent infant death-rate, calculated on 1,000 births, is 70.0, being 10 less than last year. The only cause of death showing increases were influenza, 1; respiratory disease, 1; and accident, 2. Deaths from diarrhœa were 7 less, and from congenital defects 5 less, while the majority of other causes showed decreases. Infectious diseases caused 2 fewer deaths and tuberculous diseases also 2 fewer.

INFANT DEATH-RATES FOR ENGLAND AND WALES AND SMALLER TOWNS.

	England and Wales.		Smaller Towns.		Chester.	
1923	...	...	69	...	69	86
1924	...	...	75...	...	71	89
1925	...	...	75	...	74	72
1926	...	...	70	...	67	80
1927	...	...	69	...	68	70

Notifiable Infectious Diseases. — There were 671 cases of notifiable infectious disease notified during the year, with 57 deaths, compared with 1,708 and 46 deaths in 1926. The decrease in the number of notifications is accounted for by the epidemic of measles prevalent in 1926 having died out by the end of the year, and chickenpox being also less prevalent. Whooping cough, which was increasing during the end of 1926, further increased during the early part of the year, and with the exception of pneumonia, is the chief cause of notifiable disease deaths.

Diphtheria has continued to be of comparatively slight prevalence and of slight severity. Twenty-five cases were notified, compared with 22 in the previous year, with one death in both periods. The question of immunisation against diphtheria does not appear to be urgent in Chester. The members of the hospital staff Schick-tested have given negative results.

Scarlet Fever was less prevalent, there having been only 57 cases notified, compared with 95 in the previous year. There were no deaths. The type of case continues to be mild.

Typhoid or Para-Typhoid Fever was notified 6 times. Three of those cases were connected with two cases occurring in 1926. Those two cases gave rise to four others, the three above mentioned and one which lived outside our area. They all recovered. Of the remaining three, one a child of 10 had made a recent visit to Liverpool, but no source of infection could be traced there. One other, complicated by appendicitis, died in 1928 after operation. In this case a relative with whom she had been in contact, and who had been ill recently, gave a positive widal reaction, but of rather a low dilution for a recent attack of typhoid.

Pneumonia was both more prevalent and more fatal than in 1926. One hundred and ten cases were notified, compared with 95, and 41 deaths compared with 34. There is good reason to believe that all cases are not notified. Frequently our first intimation is found in the return of the registrar of births and deaths, and a case mortality of 37 per cent. is too high over all ages. Half the cases were children under 15 years, and gave a case mortality of 25 per cent., while for the remainder of life the case mortality was 50 per cent.

Puerperal Fever. — There were two cases of puerperal fever notified during the year, one of which unfortunately died. They were both seen by the Specialist appointed under the Puerperal Fever and Puerperal Pyrexia regulations.

Puerperal pyrexia was notified seven times, including one subsequently notified as puerperal fever. One other case was removed to the Isolation Hospital, and should probably have been classed as puerperal fever. She made rapid and complete recovery.

Acute Poliomyelitis.--There were two cases notified, both on the same day, but no connection could be traced. One case recovered without any ill effects, and the other with slight paresis of the upper arm. She was ultimately transferred to the Orthopædic Clinic.

Chickenpox was less prevalent than in 1926. One hundred and sixty-two cases were notified. Practically all cases were seen after notification, but there was no reason to suggest an alternative diagnosis.

Smallpox was notified once. The case was an unvaccinated boy, with a typical rash. The source of infection was probably through his father, who was in indirect contact with the disease. The boy was removed to hospital, and all precautions taken to prevent spread. Vaccination subsequent to his disease was unsuccessful.

Encephalitis lethargica was notified three times. One case, after being in hospital for some weeks, was transferred to another institution as not being a case, but was subsequently re-diagnosed encephalitis. One other was very slight, and when seen immediately after notification presented little or nothing abnormal. The third case was notified on the day of death, and the history was ambiguous.

Measles, which had been prevalent during 1926, declined during the year, and only 37 cases were notified. There were no deaths. It is now, 1928, again becoming epidemic, but so far there has been little or no complication and no deaths.

Whooping Cough had been fairly prevalent during the autumn of 1926, and continued in epidemic proportion during the early part of 1927, when it produced 247 cases with 13 deaths. During the year, 30 were admitted to the Isolation Hospital, all being very severe or complicated. There were four deaths amongst those cases.

Ophthalmia neonatorum was notified on six occasions. Four of those were nursed at home and two in hospital. None of the cases were severe. In three in which the discharge was examined microscopically the gonococcus could not be found. All cases recovered without impairment of vision. Particulars of cases notified as ophthalmia neonatorum are as follows :—

Notified.	Cases.		Vision Unimpaired.	Vision Impaired.
	Treated			
	At Home.	In Hospital.		
6	4	2	6	0

Tuberculosis.--The total tuberculous cases notified was 65, compared with 73 last year and 59 in the previous year. Of the 65, pulmonary cases accounted for 52 and other forms 13. The notification rate per 1,000 of population is 1.23 for pulmonary cases and 0.308 for non-pulmonary. The deaths from tuberculosis numbered 45, pulmonary disease causing 43 and non-pulmonary 2. Both the attack rate and death-rate are comparatively low. Those rates for Chester and for England and Wales are compared in the following table :—

	NOTIFICATIONS.				DEATHS.			
	Pulmonary.		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	E. & W.	Chester.	E. & W.	Chester.	E. & W.	Chester.	E. & W.	Chester.
1923	1'49	1'29	0'48	0'67	0'84	1'00	0'23	0'31
1924	1'47	1'11	0'48	0'52	0'84	1'12	0'22	0'26
1925	...	1'07	...	0'33	...	0'93	...	0'14
1926	...	1'36	...	0'38	...	0'88	...	0'14
1927	...	1'23	...	0'31	...	1'02	...	0'04

DEATH-RATES IN WARDS.

The following table, published for the last few years is becoming increasingly uncertain owing to the movement of population within the City. The figures are calculated on the proportion of the population living in the various Wards in 1921, and we know that that proportion has been considerably altered in the last two or three years.

DEATH-RATES IN WARDS PER 1,000 LIVING.

	1923.	1924.	1925.	1926.	1927.	Rooms per person 1921.
St. John's ...	13.5	14.15	16.71	12.7	11.9	1.19
St. Mary's ...	13.4	15.43	15.44	13.8	15.7	1.18
St. Oswald's	12.7	13.70	14.33	11.6	10.1	.98
Boughton ...	12.4	13.20	12.18	13.5	11.5	.99
Trinity ...	12.9	13.16	11.74	13.0	13.5	1.19
Chester ...	13.1	13.76	13.5	13.0	12.5	1.08

St. Mary's and Trinity Wards are the only two showing a higher death-rate than Chester as a whole, and it is the first time since 1923 that Trinity Ward has had more than the average death-rate. The most striking feature is the great improvement in St. John's Ward. This improvement would be more noticeable if the population were more accurately known, as more than 10 per cent. of the population now reside there, 10 per cent. being the proportion in 1921. It would be better, however, not to draw any definite conclusions from the figures.

General Provision of Health Services for the City.

A.—The Hospitals provided by the Local Authority are (1) Fever, (2) Smallpox.

(1) The Fever Hospital, in Sealand Road, about a mile and a half from the centre of the City, has accommodation for 64 patients suffering from infectious disease and 26 beds for tuberculous conditions in pavilions in a neighbouring field, the administration block being used in common. The Hospital is equipped with a power-driven laundry, a disinfecting plant, mortuary and two ambulances. The nurses' home has been overcrowded for some years back, and is at present being extended and re-arranged so as to provide 12 more bedrooms, a sitting room and maids' dining room.

(2) The Smallpox Hospital, situated about half a mile from the Fever Hospital, to which it is connected by telephone, has 10 beds in two wards, together with nurses' accommodation, and kitchen and service room. It is kept ready for immediate use, and nurses revaccinated and ready for duty at any time.

B.—The Local Authority, in addition to the provision of 20 beds at Sealand for cases of tuberculosis, has 8 beds in the Cheshire Joint Sanatorium at Market Drayton; two extra beds having been provided during the year 1926.

We also send patients with non-pulmonary tuberculosis to Shropshire Orthopædic Hospital. There is no agreement with this Hospital, but they take such cases as we have suitable for their Institution.

The Maternity Hospital is under the management of the Chester Benevolent Institution. The Local Authority pay £4 10s. per week for two beds for the use of necessitous mothers. During the year, 154 patients were admitted to the Hospital, of which 108 were City residents and 46 from outside. The beds reserved for use of patients sent by the Local Authority were used for 15 patients, nearly double the number for 1926. The ante-natal clinic held at the Hospital was attended by 134 expectant mothers.

(3) There is no Children's Hospital in Chester, but there is a well-equipped commodious children's ward in the Royal Infirmary.

Other Hospitals. — (1) The Chester Royal Infirmary has 206 beds available for use. The average number of occupied beds during the year was 168.89, and the number of in-patients treated was 2,911. City patients numbered 729, and those from outside 2,182.

(2) St. James' Hospital, under the management and control of the Guardians of the Chester Union, comprises a portion of the Chester Poor Law Institution, and contains 246 sick beds with an average number of 150 occupied. The Hospital has a fully-qualified nursing staff, together with 22 probationer nurses in training, and is recognised by the General Nursing Council for England and Wales as an "Associated Training School for Nurses" in affiliation with the Birkenhead and West Derby Poor Law Hospitals.

During the year ending 31st December, 1927, 727 patients (including 70 children) passed through the Hospital, of whom 463 were discharged cured or relieved. Thirty major and 17 minor operations were performed, and 18 maternity cases were dealt with.

More than two-thirds of all the patients admitted to the Hospital are residents of the City.

The Guardians have also set apart and equipped a block of buildings for females certified under the Mental Deficiency Act. The block is approved by the Board of Control for the reception of 40 low-grade defectives, and the whole of the beds are occupied, ten cases being from the City, and the remaining 30 from the neighbouring Boroughs and Counties.

The Board of Control Inspectors report very favourably on the work carried on by the staff in this block.

There is no institutional provision for unmarried mothers, except that they are eligible for the use of the beds which are subsidised by the Local Authority in the Maternity Hospital.

No special provision is made for illegitimate infants.

Ambulance Facilities. — There are two ambulances kept at the Infectious Diseases Hospital for use of cases of infectious disease. Other two ambulances, provided by the Local Authority for use in cases of accident or non-infectious illness, are kept at the Fire Station, which is centrally situated and open day and night, so that the ambulances are always available.

CLINICS AND TREATMENT CENTRES.

	Accommodation	Provided by
1. Maternity and Child Welfare, Princess Street: Consultation	Waiting Hall, Weighing Room, Consulting Room	Local Authority.
2. School Clinics, Princess Street: Consultation and Treatment	Waiting Hall, Consulting Room	Education Authority.
3. Tuberculosis Dispensary, St. John Street	Waiting Room, Consulting Room	Local Authority.
4. Treatment Centre Venereal Diseases, Royal Infirmary: Consultation and Treatment	Consulting Room, Treatment Room	Joint, Chester and Flint and Denbigh Counties.
5. Orthopædic After-Care Clinic, St. John Street	Waiting Room, Treatment and Consulting Room	Cheshire Orthopædic After-Care Committee (premises by Chester Local Authority.
6. Ultra-Violet Ray Clinic, Princess Street	Treatment Room, Waiting Room, Dressing Room	Local Authority.

* The local Education Authority pay to the Infirmary £125 per annum for the surgical treatment of enlarged tonsils and adenoids and for refractions and minor operations amongst school children.

The Maternity and Child Welfare Clinic meets twice a week : Mondays and Thursdays, and during the winter months an extra meeting is held for sewing and cookery. Short talks are also given by the Health Visitors on various matters connected with health and the bringing up of children.

The number of attendances and weighings are given in the following table :—

	Number.	Attendances.
Mothers	371	1748
Expectant mothers ...	60	216
Babies	230	1047
Children (1 - 5 years) ...	257	847

Weighings.

Babies	1026
Children	389

Since the introduction of compulsory weighing of infants, the poorest of the mothers have stopped attending. The loss in that direction is, however, compensated for by the more intelligent interest shown by those now in attendance.

The following is a summary of the consultations with the medical attendant during the year :—

First visits of infants (under 12 months)	...	...	232
Subsequent visits	...	...	333
Children 1 - 5—first visits	...	...	94
Subsequent visits	...	...	76
Expectant mothers—first visits	...	...	80
Subsequent visits	...	...	37
			852

The Health Visitors visit, on or about the tenth day after birth, all children whose births are notified, except those cases in which they are asked not to attend. During the year, 722 births were notified, and of those 689 were regularly visited.

In the general supervision of child life, enquiring into the probable cause of infant deaths or still-births and advising on the health of mothers the Nurses made the following visits :—

HEALTH VISITORS' REPORT.

Total number of births notified (of those, 24 were notified late, 12 by doctors, and 12 by midwives)	772
Cases attended and delivered by doctors	83
Cases attended and delivered by midwives	689
Number of still-births (midwives' cases 20, doctors' 6)	26
Primary birth visits	612
Return visits	2,566
Visits to children between 1 - 5 years	4,223
Visits to expectant mothers	333
Other visits (infectious disease)	2,806
Visits to Midwives	54

Of the 689 births attended by midwives, 87 cases required the calling in of medical help for the following reasons :—

Feebleness of child	12
Prolonged labour or unusual presentation	1
Complications before labour	7
Complications during labour	13
Complications after labour	9
Rise of temperature	15
Discharge from eyes	9

Deformity of infant	...	...	...	...	2
Lacerated perinæum	...	...	...	...	12
Abortion	...	...	...	...	1
Skin affections (child)	...	...	...	...	2
Prematurity	...	...	...	...	4
					87

There were 26 still-births registered during the year, and all those attended by midwives were enquired into. In those the probable cause of still-birth was as follows :—

Disease or ill health of mother	...	...	...	...	7
Accident of parturition	...	...	...	...	3
Accident to mother	...	...	...	...	0
Overwork	...	...	...	...	1
Prematurity	...	...	...	...	2
Difficult labour	...	...	...	...	2
No satisfactory reason	...	...	...	...	5

There were 51 births of non-residents in the Maternity Hospital. These were not visited, but particulars sent to the Medical Officer of Health of the district of residence.

Under the provisions of the Midwives Act the Local Authority paid the whole or part of the doctor's fee, when called in by a midwife, in 32 cases, quite three times the number for 1926. In addition to these, the District Nursing Association pays the doctors when called in by their nurses.

The notification of artificial feeding is very badly carried out, only 10 such notifications having been received during the year.

Ophthalmia neonatorum was notified on 6 occasions.

Under the Milk (Mothers and Children) Order, 1918, milk was supplied free to 1,286 cases, practically the same number as last year. The great majority of those receiving milk are unemployed. The statements made on application are verified where there is reason to doubt, but there has been no reason to take any proceedings during the year.

The scheme for supplying dentures to expectant and nursing mothers was used only once during the year. The large amount of unemployment is doubtless one reason for not making use of the scheme, but there is still very marked apathy in regard to dental hygiene.

The Notification of Births Act was somewhat better carried out this year than last, there being only 24 cases of late notification, compared with 48. Half the late notifications were amongst those attended by doctors.

There is no day nursery in Chester.

The School Clinics comprise both consultation and treatment meetings. A clinic for examination and consultation meets every week day morning except Saturday, and a meeting for treatment of minor ailments is held in the afternoon at 4 o'clock, except on Monday and Thursday.

The Dental Clinic meets daily except Friday and Saturday. Friday is occupied by the Dentist in making dental inspections in schools.

Tuberculosis Dispensary. — There are three meetings per week, on Monday and Thursday, at 11 a.m., and on Thursday, at 6 p.m. There were 203 persons on the register at the end of the year. Twenty-four contacts of known cases were examined, and some of those are being kept under observation. Three hundred and fourteen attendances were made, and the Nurses made 722 visits in supervising home conditions. Seventy-six new cases were examined, including non-pulmonary cases.

Venereal Diseases.—The treatment centre is at the Royal Infirmary, and the clinic is open on the following days and hours:—Mondays and Wednesdays, 5 to 7 p.m.; Thursdays, 3 p.m.; and Saturdays, 12 noon to 2 p.m. The clinic is open all day for irrigations, and trained assistants are in attendance. The scheme is a joint one with the Counties of Denbigh and Flint, while Cheshire, although not a partner in the scheme, pays in proportion to the patients attending from that area.

The number of Chester patients treated for the first time during the year were as follows. For comparison, the figures for the past seven years are given:—

	1927.	1926.	1925.	1924.	1923.	1922.	1921.
Syphilis ...	20	31	21	32	32	23	21
Gonorrhœa ...	35	45	43	25	30	27	26
Conidtions other than							
Venereal ...	7	12	11	9	4	3	10
Attendances ...	1067	1443	—	—	—	—	—
In-patient days ...	252	142	38	187	55	381	367

In addition, records were sent from three hospitals outside Chester in reference to 6 patients who had attended there from this area.

It is difficult to get a reliable idea as to the position of venereal diseases, but the impression of those responsible for treatment is that it is probably less in quantity and that the wide spread and dreadful after-effects are likely to be greatly lessened as the result of treatment.

Attempts have recently been made to assess the amount of congenital syphilis in school children, but the estimates made are so divergent that it is likely that the evidence regarded as satisfactory was widely different in different cases.

5. The Orthopædic After-Care Clinic meets once a week : on Friday, when cases are examined by a trained Sister from Shropshire Orthopædic Hospital, and a specialist surgeon from the same hospital reviews all cases once a month or six weeks. The work of after-care is carried out, under the above direction, by voluntary workers of the Red Cross Society and the Order of St. John of Jerusalem.

Public Health Officers of the Local Authority.

WHOLE-TIME. MALE STAFF.

1. Medical Officer of Health, School Medical Officer, Tuberculosis Officer and Medical Superintendent Infectious Diseases Hospital.
2. Assistant Medical Officer and Assistant School Medical Officer, etc.
- 3§†Chief Sanitary Inspector, F.S.I.A., C.R.S.I., Tech. Silver Medallist.
4. Chief Clerk.
- 5*†District Sanitary Inspector, M.S.I.A., C.R.S.I.
6. District Sanitary Inspector, C.R.S.I.
7. Assistant District Inspector.
8. §Assistant Clerk and Additional Inspector, C.R.S.I.
9. Assistant Clerk and Laboratory Attendant.
10. Labourer.
11. Rat Catcher.

FEMALE STAFF.

Health Visitor and School Nurse, C.M., C.R.S.I.
 Health Visitor and School Nurse, C.M., C.R.S.I., General Trained.
 Health Visitor and School Nurse, C.M., General Trained.
 Health Visitor and School Nurse, C.M., General Trained.

PART-TIME STAFF.

Two Clinical Officers, V.D. Clinic, on the Staff of the Royal Infirmary.

Physician : at Maternity and Child Welfare Centre.

Veterinary Surgeon : under Tuberculosis (Animals) Order, 1925.

* Chiefly employed in Meat Inspection and Housing.

† Certificate of the Royal Sanitary Institute for Meat and Food Inspectors.

§ Certificate Liverpool University for Meat and Food Inspectors.

PROFESSIONAL NURSING IN THE HOME.

(a) GENERAL NURSING.—There is no outside nursing done by the Infirmary Authorities. Most of the nursing for general purposes is done by the Chester District Nursing Association. The nurses employed by this Institution attend roughly a third of the maternity cases in their homes.

(b) As regards infectious diseases, the great majority of these cases are treated in hospital. In the case of measles and whooping cough, the Local Authority have entered into an agreement with the Chester Benevolent Institution by which for the payment of £50 a year, they help in the home-treatment of minor ailments, and, at times of epidemic, attend in their homes cases of measles and whooping cough sent to them by the Local Authority. Provision is now made for treatment of severe or complicated cases of these diseases in hospital.

MIDWIVES. — There are 24 midwives in practice in the City : all are certified and none are subsidised by the Local Authority. Nine of the midwives practice under the Benevolent Institution and Maternity Home. The homes are visited quarterly, and antenatal records, etc., inspected by the senior Health Visitor ; and the midwives, with their registers and bags, are examined once a year by the Medical Officer of Health, and on special occasions as necessary.

REGISTRATION OF MATERNITY HOMES.

1.	Number of applications	...	...	...	...	...	7
2.	Number of homes registered	...	...	...	...	...	4
3.	Number of Orders made refusing or cancelling registration	...	...	...	...	...	3
4.	Appeals against such orders	...	...	...	...	...	Nil
5.	Number of cases in which such orders have been—						
	(a) confirmed on appeal	...	...	...	...	...	Nil
	(b) disallowed	...	...	...	...	...	Nil

6.	Number of applications for exemption from registration	1
7.	Number of cases of exemption—	
(a)	granted	1
(b)	withdrawn	Nil
(c)	refused	Nil

The four Maternity Homes which have been registered have been inspected and found satisfactory. The one exemption is that of the Chester Royal Infirmary.

Chemical and other Laboratory Work.

In the Municipal Laboratory are examined all the necessary swabs and specimens from the Isolation Hospital and from the Tuberculosis Clinic, and also a large amount of material sent by private practitioners in the City. In addition, the City water supply is examined chemically once every month, and water from each separate filter and from a consumer's tap is examined bacteriologically every 14 days. There is also a large number of samples of milk examined bacteriologically. The following table sets out the work done in the Laboratory :—

LABORATORY WORK, 1927.

Material.	Examined for	Positive.	Negative.	TOTAL.
Swabs, Throat and				
Nose	Diphtheria bac.	53	307	360
Sputum	Tubercle bac.	63	110	173
Urine	"	3	4	7
Milk	"	...	4	4
Fæces	Bac. Typhosus	...	13	13
Blood	B. Typh. & Para Typhosus	6	...	6
Smear	Gonococcus	1	1	2
Eye Swabs	"	...	3	3
Urine	Albumen	...	3	3
Fæces	B. Dysenteriae	...	2	2
	Totals	126	447	573

Chemical Examinations of City Water Supply	12
Bacteriological Examinations of City Water Supply from separate Filters	196
Bacteriological Examinations of Milk	148
	356
Total Examinations	929

LIST OF ADOPTIVE ACTS, BYE-LAWS AND LOCAL REGULATIONS IN FORCE IN THE DISTRICT.

- Public Health Acts Amendment Act, 1890.
 Infectious Diseases (Prevention) Act, 1890.
 Public Health (Prevention and Treatment of Diseases) Act, 1913.
 Public Health (Tuberculosis) Act, 1921.
 Public Health Act, 1925, except Sections 17, 18, 19, 20, 34 and 56.
 Rats and Mice (Destruction) Act, 1919.
 Baths and Wash Houses Act, 1907.
 Private Street Works Act, 1892.
 Public Improvements Act, 1860.
 Chester Improvement Acts, 1845, 1884.
 Bye-laws as to Obstructions, Encroachments and Nuisances, 1879.
 Bye-laws under the Dairies, Cowsheds, and Milkshops Order, 1885,
 1904.
 Bye-laws for the Regulation of Slaughter-houses, 1909.
 Bye-laws for the Regulation of Slaughter-houses provided by the
 Council, 1925.
 Bye-laws for the Regulation of Common Lodging-houses, 1909.
 Houses and Parts of Houses Let in Lodgings Regulations, 1867.
 Bye-laws in respect of Nuisances, 1887.
 City of Chester (Measles and Whooping Cough) Regulations, 1925—
 S.R.O., 1925, No. 1130.
 City of Chester (Public Health, etc.) Order, 1926 (adopting Public
 Health Acts Amendment Act, 1907, and repealing certain sections
 in Acts of 1845 and 1884.

Sanitary Circumstances of the Area.

WATER SUPPLY.—The conditions of the City's water supply remains as formerly. The water has been examined chemically each month and bacteriologically every fortnight. On those occasions the water from each individual filter is examined separately, as well as that from the filtered water reservoir and from a consumer's tap. The most important sample from the City point of view is that from the filter water reservoir, that being the water as supplied to consumers.

The chemical examination showed nothing unusual, no figure abnormal to the river in its usual condition, being found.

The fortnightly bacteriological examination gave much better results than has previously been the case.

The following table gives the percentage occasions in which typical bacillus coli were found (or were absent) in 10 c.c. and 100 c.c. of the water from the filtered water reservoir for the years 1924-27. The x indicates B. Coli present ; — indicates B. Coli absent :—

	1924.		1925.		1926.		1927.	
	x	—	x	—	x	—	x	—
10 c.c.	34·0	66·0	13·7	86·3	16·7	83·3	0·00	100
100 c.c.	59·0	41·0	36·4	63·6	70·9	29·1	25·0	75

The water supplied to the town was better from a bacteriological standpoint than in any year since the 100 c.c. standard was adopted. The purity, however, ought to be uniformly equal to this, or better, and not vary widely as shown on the table.

The percentage of samples in which “all London waters” did not contain typical Bacillus Coli in 100 c.c. in 1926 was 83·7.

The following table sets out the bacteriological findings for the year:—

Bacteriological Examination

Date.	Unfiltered River Water.			Filter 1.			Filter 3.			Filter 4.		
	Gel. (1)	Agar. (2)	B. Coli (3)	Gel. (1)	Agar. (2)	B. Coli (3)	Gel. (1)	Agar. (2)	B. Coli (3)	Gel. (1)	Agar. (2)	B. Coli (3)
1927												
			5 1			10 100			10 100			10 100
Jan. 5	3000	250	x x	2	G.O.	— x	12	4	— x	2	1	x x
Jan. 20	1450	120	x x	10	3	— —	7	3	— x	9	5	— x
Feb. 2	900	140	x x	15	6	— x	10	6	— x	23	15	x x
Feb. 16	700	75	x x	6	2	— —	5	3	— —	10	5	— —
Mar. 9	2300	210	x x	3	5	— —	Not Running			8	5	— —
Mar. 23	500	70	x x	17	2	— —	Not Running			20	5	— —
April 6	—	50	x x	13	6	— —	Not Running			Not Running		
April 27	350	70	x x	2	4	— —	83	G.O.	— —	Not Running		
May 11	400	45	x —	Liq. G.O. — —			Not Running			Liq.	12	— —
May 25	500	40	— —	3	3	— —	42	27	— —	Not Running		
June 8	2900	205	x x	6	2	— —	10	3	— —	20	3	— —
June 22	1500	50	x x	10	5	— —	9	5	— —	Not Running		
July 6	3500	2415	x x	12	3	— —	14	1	— —	12	8	— —
July 20	1000	30	x x	12	3	— —	10	2	— —	20	2	— —
Aug. 10	400	270	x x	4	2	— —	6	4	— —	Not Running		
Aug. 24	2950	2300	x x	12	14	— x	5	4	x x	Not Running		
Sept. 7	1100	50	x x	2	1	— —	12	9	— —	10	8	— —
Sept. 21	1100	55	x x	25	5	— —	15	8	— —	Not Running		
Oct. 12	600	50	x x	5	2	— —	8	2	— —	5	2	— —
Oct. 25	1300	65	x x	30	11	— x	120	20	x x	17	9	— —
Nov. 9	1400	110	x x	15	5	— x	12	4	— x	Not Running		
Nov. 30	1550	350	x x	6	2	— —	6	2	— x	Not Running		
Dec. 14	550	55	x x	5	1	— —	7	2	— —	8	0	— —
Dec. 20	4800	530	x x O.I. x	10	1	— —	16	2	— x	Not Running		

REFERENCE :—G.O. Agar Grown over.

Liq.—Gelatine Liquified.

of City Water Supply, 1927.

Filter 5.			Filter 6.			Filter 7.			Filter 8.			Consumers' Tap.		
B. Gel. Agar. Coli			B. Gel. Agar. Coli			B. Gel. Agar. Coli			B. Gel. Agar. Coli			B. Gel. Agar. Coli		
(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
10 100			10 100			10 100			10 100			10 100		
11	8	— x	10	3	— x	15	3	— —	30	3	— x	5	1	— x
10	8	— x	Not Running			18	9	x x	6	4	— x	20	4	x x
16	8	— x	Not Running			21	7	— —	35	12	— x	36	20	— x
8	5	— —	Not Running			23	3	— x	12	5	— x	22	4	— —
3	8	— x	7	3	— x	10	12	— x	4	9	— —	5	4	— x
3	2	— —	3	4	— —	20	10	— x	13	6	— —	16	11	— x
9	7	— —	5	3	— —	49	16	— —	14	5	— —	—	3	— x
2	8	— —	4	5	— —	6	G.O.	— —	16	91	— —	5	2	— —
Liq.	11	— —	Liq.	8	— —	Liq.	35	— —	Liq.	60	— —	Liq.	20	— —
14	6	— —	3	3	— —	Not Running			12	6	— —	15	5	— —
27	5	— —	13	2	— —	14	4	— —	12	3	— —	10	2	— —
Not Running			3	9	— —	10	4	— —	15	3	— —	22	4	— —
25	1	— —	12	5	— —	14	3	— —	24	1	— —	17	8	— —
8	2	— —	7	4	— —	12	1	— —	8	3	— —	15	3	— —
7	1	— —	11	3	— —	4	Nil	— —	4	7	— —	9	2	— —
2	3	— —	9	3	— —	3	7	— x	7	5	— —	5	10	— x
7	3	— —	10	5	— —	5	3	— —	9	4	— —	55	22	— x
Not Running			20	6	— —	10	2	— —	12	4	— —	24	6	— —
6	3	— —	8	2	— —	6	3	— —	5	4	— —	6	1	— —
70	21	x x	18	5	— x	66	15	x x	20	8	— x	22	13	— x
31	3	— x	16	4	— x	15	8	— x	9	3	— x	38	6	x x
13	3	— —	7	1	— x	6	3	— x	9	2	— —	20	8	— —
10	1	— —	8	2	— —	16	2	x x	6	3	— —	5	0	— —
9	2	— —	6	3	x x	16	6	— x	10	2	— —	7	1	— —

— Negative.

x Positive.

CHEMICAL ANALYSIS OF CITY WATER SUPPLY, 1927.

Date 1927.	SOURCE.	Chlorine.	Free Ammonia	Albuminoid Ammonia.	Oxygen absorbed in $\frac{1}{4}$ hour.	Oxygen absorbed in 4 hours.
Jan. 12	Cathcart Square, Crook St. ...	1'7	'003	'024	'116	'188
Feb. 9	Horton's Court, Goss St. ...	1'7	'004	'012	'139	'19
Mar. 16	Trinity Court, Trinity St. ...	1'8	'0026	'014	'118	'172
April 13	Greenock Place, Crook St. ...	1'5	'0021	'019	'148	'276
May 18	Valentine's Ct., Northgate St....	2'2	'002	'016	'077	'116
June 15	Parker's Court, Princess St. ...	2'2	'002	'010	'098	'155
July 27	Kiln Court, Linenhall St. ...	2'2	'018	'010	'047	'108
Aug. 17	Evans' Court, Queen St. ...	1'5	'0013	'0154	'156	'240
Sept. 14	Banners Court, Princess St. ...	1'8	'002	'027	'176	'250
Oct. 19	Holloway's Court, Crook St. ...	2'1	'0026	'014	'08	'133
Nov. 16	Trinity Court, Trinity St. ...	1'8	'003	'010	'065	'128
Dec. 7	Kiln Court, Linenhall St ...	1'9	'002	'029	'056	'144

CLOSET ACCOMMODATION. — Remains as before, there being in the City only 41 pail closets in property built too low to get access to a sewer. There are also 9 privies in rural parts of the town.

SCAVENGING. — The system of household removal was improved in 1926 by the introduction of the container system, but there is still removal done by carts. The disuse of those carts for this purpose ought to be aimed at, as they are quite unsuitable for the purpose.

The Sanitary Inspection of the Area.

The following is a tabular statement of the work done in the sanitary department :—

Complaints in respect of nuisances	...	...	...	281
Visits in respect of nuisances	...	...	...	3205
Rooms disinfected after infectious disease	...	...	...	238
Investigations <i>re</i> infectious disease	...	...	...	179
Matters referred to City Surveyor	...	...	...	102
Tests applied to drains	...	...	...	343
Drains found defective	...	...	...	274
Drains repaired	...	...	...	274
Drains insufficient	...	...	...	22
Drains reconstructed	...	...	...	116
Ashpits abolished	...	...	...	25
Ashbins provided	...	...	...	207

Inspections of courts	...	...	...	...	...	175
Inspections of school premises	...	...	...	...	...	21
Inspections of stables, etc.	...	...	...	...	...	125
Inspections of canal boats	...	...	...	...	...	151
Inspections of factories and workshops	...	...	...	...	...	221
Dairies, cowsheds and milkshops	...	...	...	...	...	182
Inspections of slaughter-houses	...	...	...	...	...	1393
Inspections of butchers' shops	...	...	...	...	...	281
Inspections of fishmongers' shops	...	...	...	...	...	225
Inspections of other food shops	...	...	...	...	...	363
Inspections of offensive trade premises	...	...	...	...	...	11
Smoke observations	...	...	...	...	...	94
House-to-house (district inspections)	...	...	...	...	...	166
Visits to common lodging houses	...	...	...	...	...	15
Dwellings (inspections and re-inspections)	...	...	...	...	...	5853

The following notices were served :—

Intimation	...	...	...	...	...	...	561
Statutory	...	...	...	...	...	...	145

Of the statutory notices, 65 were served under the Housing Act, 1925, and 2 under the Rats and Mice (Destruction) Act.

RATS AND MICE (DESTRUCTION) ACT, 1919.

Work in connection with the destruction of rats and other vermin is carried out during the year and steps taken to render premises rat proof.

During the week beginning 30th October, a special campaign was carried out against rats. The staff of inspectors and the official rat catcher were occupied in laying poison baits in the sewers and other suitable places. One hundred and eighty-eight pounds of poison bait were used, and subsequent inspections showed that they had been freely taken and evidence of their efficacy was found. The campaign was advertised previously, and citizens applied for bait or traps in 23 instances. During the week poison gas was used at the tip on two occasions, and proved very satisfactory. A preliminary survey showed that rats were not so abundant as was expected, but after the use of poison gas the number was quite evidently reduced.

During the year the rat catcher made the following visits, and used traps or poison on the indicated occasions :—

RATS AND MICE DESTRUCTION ACT, 1919.

No. of Visits.	Method			Caught		Month 1927.
	Traps.	Poison	Gas	Rats	Mice	
158	136	25	...	221	...	January
127	78	50	...	171	...	February
132	82	50	...	210	...	March
126	81	46	...	242	...	April
132	99	36	...	179	...	May
135	118	19	...	226	...	June
139	98	43	...	256	...	July
148	104	46	...	239	...	August
122	107	17	...	95	...	September
144	106	43	2	106	...	October
106	95	9	2	62	52	November
123	105	36	...	154	8	December
1592	1199	420	4	2161	60	TOTAL.

SMOKE ABATEMENT.

The Public Health (Smoke Abatement) Act, 1926, came into operation on July 1st, 1926. In the previous April, a letter calling attention to the legislation was sent to all users of steam power, and suggestion that steps should be taken to meet the requirements of the Act.

Six users of steam power have installed some form of apparatus for the efficient burning of coal. The use of such apparatus ought to result in a saving of fuel, besides lessening the pollution of the atmosphere. In the case of one of the early installations, this saving is reported to be considerable, and no doubt, when sufficient time has passed, the same result will be shown in other cases. As the benefits both to public health and to the manufacturers' pocket become better appreciated, other steam users will doubtless instal suitable apparatus.

Premises and occupations which can be controlled by Bye-laws.

WHOLESALE DEALERS IN MARGARINE AND MARGARINE CHEESE.

The number of dealers on this register remains the same—15. The premises are regularly inspected, and are kept in a satisfactory condition.

FRIED FISH SHOPS.

There are 35 premises occupied and used for the cooking of fish and chipped potatoes for sale. The premises are frequently visited, and the ranges and utensils and materials carefully examined. Special attention is paid to the ventilation of the cooking ranges, but it seems impossible to prevent a certain amount of smell escaping.

RAG AND FLOCK ACT.

There were no samples of rag flock submitted for analysis.

COMMON LODGING HOUSES.

There has been no change in the number of common lodging houses. There are four registred premises containing a total of 27 rooms which provide for 145 men. There is no common lodging house for women. The premises were kept throughout the year in a reasonably good condition.

SANITARY CONDITION OF SCHOOLS.

The sanitary condition of schools has been maintained in a satisfactory manner.

HOME WORKERS.

The homes of home-workers were regularly inspected, and were found satisfactory.

Thirty-six returns under the regulations were sent in, giving particulars of 23 persons.

PUBLIC CONVENIENCES.

The least satisfactory of the public conveniences are being abolished and, where necessary, substituted by more modern structures. Sanction for a loan for the construction of a convenience at City Road is at present being asked. This is much needed, and will be a great improvement on existing arrangements.

CANAL BOATS ACTS, 1884 AND 1887.

The number of canal boats on the Register kept under the above Acts was 285 on 31st December. This is 6 fewer than in 1926.

One hundred and fifty-one boats were inspected, and, with three exceptions, complied with the regulations. The contraventions were the necessity for painting in three cases, two dilapidated and one each for overcrowding, cleanliness and marking.

The accommodation provided in the boats inspected was for 510 persons, but only 390 were in occupation. The number included 167 adult males, 101 adult females, 86 children of school age, and 36 children under school age. Particulars of the work done are shown below.

CANAL BOATS ACTS, 1877 AND 1884.
*STATISTICAL SUPPLEMENT to the (1927) Annual Report of the
 Chester Urban Sanitary Authority.*

2	Number of Boats added to Register in 1927	
—	Number re-registered owing to Structural Alterations	
—	Number re-registered owing to other reasons	
293	Total Number registered to 31st December, 1927	
8	Total Number of Registrations Cancelled	
285	Actual Number of Boats on Register at 31st December, 1927 ...	
151	Number of Boats inspected in 1927	
148	Number of Boats conforming to the Acts and Regulations	
3	Number of Boats Infringing the Acts and Regulations	
Total Number for which the Cabins were registered—510.		
Total Number occupying the Cabins		390
Details of Occupation—Male Adults		167
Female Adults		101
Children of School Age		86
Children under School Age		36
		390

Details showing Numbers Infringing in respect to—

No. of Cases met with.		No. of Cases remedied
—	Registration	—
—	Notification of Change of Master	—
—	Absence of Certificate	—
—	Certificate not Identifying Owner with Boat	—
1	Marking	1
1	Overcrowding	1
—	Partition (Regn. 8, b. ii.)	—
—	Females over 12 Improperly Occupying	—
1	Cleanliness	1
3	Painting	3
—	Ventilation	—
2	Dilapidation	2
—	Removal of Bilge Water	—
—	Without Pump	—
—	Refusal of Admittance to Inspector	—
—	No proper Water Vessel	—
—	Without requisite Double Bulkheads	—
—	Non-notification of Infectious Disease	—
—	Number of Boats detained for Cleansing (not for I/D)	—
8	Total Cases met with.	8
	Total Cases Remedied	8

Number of Legal Proceedings taken	None
Number of printed Notice Forms issued	Three
Number of Notices attended to	Three
Number still corresponding about	None

Housing.

Further progress has been made in the provision of houses, 226 new houses having been built during the year. As, however, 73 have been demolished as unfit for habitation the net gain for the year is 153.

Particulars of the new buildings are as follows :—

Houses erected by the Corporation

Non-parlour type	156
Parlour type	16
With financial assistance	35
Privately	19
	226

The demolitions were in—

Valentine Court	5
Hoole Lane	2
Linenhall Street	2
Newgate	2
Bellis' Court	13
Handbridge	49 (de-housed only)
	73

Net increase in inhabited houses 153. Overcrowding is still serious but is becoming less. The average number of persons per house is now 4.65.

In 1921, the figure was 4.83, and, in 1926, 4.7. The leeway to make up is still great, and it is likely to take another 6 or 8 years to reach the accepted standard of 4.25 persons per house.

During the year, 166 houses were inspected and records taken under the Housing Act, 1925, Sec. 8. Of this number there were only four which did not call for some action by this department.

Twelve of the houses were in such a condition as to render them unfit for habitation, and were dealt with as follows :—Closing orders were made on four of the houses, and three of those demolished and one order determined. In four, closing orders are to be made early in 1928, while the remaining four have to stand over to a later date.

Of the remaining 150 houses inspected, 88 were rendered fit through informal action, and 12 after service of notice under the Act of 1925, Section 3. At the end of the year 50 of the houses were still being dealt with. In twelve, work was in progress; in 9 contractors had received instructions; in 8 tenders were being invited; in 8 the owners have been granted six months' to do the work; and in 13 nothing has been done yet to remedy the defect.

By arrangement with the owners, 10 houses in Bellis' Court, Cuppin Street, were demolished, and the ground added to the playground of St. Francis' School. The result is a great improvement, not only to the school but to the neighbourhood.

In addition to the four closing orders mentioned above, 22 houses in Potter's Court and 8 in Folliott's Court were so dealt with.

Under the Public Health Acts, 1,514 houses have been inspected, of which 226 gave no cause for complaint. Intimation notices were served in 561 instances and statutory notices in 80. Informal action resulted in satisfactory restoration to good condition in 848 cases. Of the statutory notices served there were five outstanding at the end of the year, but the work was in hand.

The following tabular statement sets out the housing work done under different Acts or Orders:—

There is need for bye-laws regulating the use of houses let in lodgings, ~~and for the use of vans and sheds as habitations.~~

HOUSING CONDITIONS.

STATISTICS.—Year ended 31st December, 1927.

1. General.

(1) Estimated population	42,200
(2) General death-rate	11.86
(3) Death-rate from tuberculosis	1.06
(4) Infantile mortality	70.30
(5) Number of dwelling-houses of all classes (1927)	9,063
(6) Number of working-class dwelling-houses	6,527
(7) Number of new working-class houses erected	172

I.—*Inspection.*

(1) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	1,280
---	-------

(2) Number of dwelling-houses which were inspected and recorded under the Housing (Consolidated Regulations, 1925)	166
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	12
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-heading) found not to be in all respects reasonably fit for human habitation	1,052

II.—*Remedy of Defects without Service of Formal Notices.*

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their Officers	1,280
---	-------

III.—*Action under Statutory Powers.*

A. Proceedings under Section 3 of the Housing Act, 1925 :—

(1) Number of dwelling-houses in respect of which notices were served requiring repair	32
(2) Number of dwelling-houses which were rendered fit—	
(a) by owners	16
(b) by Local Authority in default of owners	6
(3) Number of dwelling-houses in respect of which closing orders became operative in pursuance of declaration by owners of intention to close	0

B. Proceedings under Public Health Acts :—

(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	80
(2) Number of dwelling-houses in which defects were remedied—	
(a) by owners	75
(b) by Local Authority in default of owners	0

C. Proceedings under Sections 17 & 18 of the Housing,
Town Planning, etc., Act, 1909 :

(1) Number of representations made with a view to the making of closing orders	34
(2) Number of dwelling-houses in respect of which closing orders were made.....	34
(3) Number of dwelling-houses in respect of which closing orders were determined, the dwelling-houses having been rendered fit	1
(4) Number of dwelling-houses in respect of which demolition orders were made...	0
(5) Number of dwelling - houses demolished in pursuance of demolition orders	0
(6) There were 10 houses demolished by the owners by arrangement without service of demolition orders	10

Inspection and supervision of Food.

(a) MILK SUPPLY.

All farms and dairies inside our boundaries are regularly inspected and kept in as clean and hygienic a condition as circumstances will allow. The cattle are examined twice yearly by the veterinary officer of the Local Authority, and, if occasion requires it, individual cattle are examined when necessary. A further check is kept on the condition of milk by the regular examination of the bacterial content of samples. During the year, 148 samples have been examined with this object, There have also been 29 samples examined biologically for the presence of tubercle bacillus. Tubercle bacilli were found in two samples, and as the milk was produced in the County the circumstances were communicated to the County Medical Officer. In one sample in which the amount of pus found in the milk warranted the destruction of the cow, subsequent examination revealed generalised tuberculosis, although no tubercle was found in the milk.

Milk Designations Order.

During the year, 54 samples of milk were submitted to chemical examination for the detection of adulteration. None of the samples contained preservative. Three samples were found deficient in fat. In

one case the seller was prosecuted, and in the two others warning was given. The average fat content was practically the same as last year, being 3.60 per cent., compared with 3.67.

One hundred and forty-eight samples were examined for cleanliness. Taking the Ministry's standard of less than 200,000 germs per c.c., 89 per cent. of the Chester milk supply is satisfactory. There has been a marked improvement in the cleanliness of the milk sold in the City in the last few years, and if cooling of milk immediately after milking and provision made for keeping the milk cool afterwards the improvement would be still more marked. Out of the 16 samples which proved unsatisfactory, 12 were taken between June and October. *Bacillus Coli* is still found too often in 0.1 c.c., where the germ count has exceeded the Ministry's standard, the seller and producer are written to, and if thought advisable the Medical Officer of the district concerned. The following tables give particulars of the chemical examinations of milk and of the examinations for cleanliness:—

CHEMICAL EXAMINATION OF MILK.

Date.	Sample No.	Fat.	Solids not Fat.	Date.	Sample No.	Fat.	Solids not Fat.
Jany. 26	1	3.26	9.0	May 20	55	3.45	8.73
	2	3.92	8.88		56	2.80	8.93
" 27	3	4.45	9.09		57	2.92	9.25
" 26	4	3.48	8.78		58	3.12	8.9
	5	3.6	8.48	" 27	1602	3.03	8.85
	6	3.8	8.88	July 29	69	3.66	8.88
" 27	7	3.68	8.92		70	3.28	8.72
	8	3.62	8.92	" 30	71	3.48	8.6
	9	3.94	8.81	Sep. 27	78	4.26	8.94
Feb. 1	10	2.96	8.81		79	4.13	8.97
	11	4.28	8.7		80	3.8	9.08
	12	3.42	8.74		81	3.68	8.92
	13	4.0	9.02		82	3.83	8.57
	14	3.18	8.92		83	3.3	8.72
Mar. 1	27	3.62	8.88	Nov. 8	84	4.55	9.09
	28	3.8	9.0		85	3.63	8.71
	29	3.13	8.85		86	4.18	8.78
	30	3.58	8.92		87	4.59	9.03
April 27	47	4.60	8.68		88	4.47	9.13
	48	3.30	8.54		89	3.4	8.6
	49	3.58	8.90	Nov. 22	104	4.38	8.98
	50	3.77	9.11		105	4.26	9.1
	51	3.75	9.19		106	4.76	9.2
	52	3.02	8.50		107	4.45	8.85
May 20	53	3.36	8.98		108	4.36	8.84
	54	4.1	8.86		109	4.18	8.5

BACTERIOLOGICAL MILK EXAMINATIONS, 1927.

Summary of Counts.

MONTH.	GERMS IN 1 C.C.						Total Exam'd.	Number letters sent.
	Under 50,000.	50,000 and under 100,000.	100,000 and under 200,000	200,000 and under 500,000.	500,000 and under 1,000,000.	1,000,000 and over.		
January ...	8	7	4	...	1	...	20	1
February ...	8	2	1	...	...	1	12	1
March ...	6	3	3	...	...	...	12	...
April ...	5	3	1	...	...	...	9	...
May ...	3	2	2	...	...	...	7	...
June ...	8	2	3	1	...	...	14	1
July ...	2	1	3	1	3	...	10	4
August ...	7	1	1	1	...	...	10	1
September ...	8	...	2	...	2	...	12	2
October ...	9	3	4	2	...	2	20	4
November ...	9	2	...	1	...	...	12	1
December ...	7	1	1	1	...	...	10	1
Total ...	80	27	25	7	6	3	148	16
Percentages	54.05%	18.24%	16.75%	4.72%	4.05%	2.02%	...	10.81%

DAIRIES, COWSHEDS AND MILKSHOPS ORDERS.

Work done under these Orders is detailed below :—

Registered cow keepers	15
Inspections of cowsheds	82
Contraventions	4
Contraventions remedied	4
Total number of Registered Milk Sellers	112
Registered Dairies (including those attached to cowsheds)	47
Registered Purveyors of Milk not occupying Dairies in the City	65
Dairy Inspections (City)	96
Contraventions	2
Contraventions remedied	2
Nature of contraventions in Dairies and Cowsheds—	
Need of limewashing	4
Defective yard drains	1
Defective yard paving	1
Unsuitable premises	Nil

(b) MEAT, ETC.

All places where meat is prepared are regularly examined and conditions kept in a clean hygienic condition.

All meat killed in the Public Slaughter-house is examined, and most of it is now marked with the official stamp of the Local Authority showing it has been so examined. The regular examination and marking of meat now takes a large part of the time of an inspector, it being necessary for him to be in constant attendance for nearly three days a week. Meat killed in private slaughter-houses is also examined, and as far as is possible meat killed outside the City after it has been brought to the retailer's shop.

The very necessary extension to the Public Slaughter-house made in 1926 has been of great value, and it is now used to its full extent. The number of butchers using the slaughter-houses is now 27, and the animals killed 11,597 during the year, compared with 20 butchers using the facilities and 10,666 animals killed in 1926.

The number of private slaughter-houses in the City remains the same: five registered and two licensed.

In the last quarter of the year a large number of livers had to be condemned owing to the presence of liver flukes, probably a result of unsatisfactory pasture and the very wet summer.

There is a considerable amount of meat brought into the City from surrounding districts where meat inspection is apparently carried out in an indifferent manner. This entails a very close watch being kept on such meat in retail shops.

The estimated weight of condemned food stuffs was 11 tons 2 qrs. 24 lbs. It was voluntarily surrendered.

The animals slaughtered in the Public Slaughter-house were :—

Cattle	1,023
Calves	701
Sheep	9,348
Pigs	525
	11,597

In the inspection of meat and other food stuffs, the following visits were made :—

Slaughter-houses	1,536
Butchers' shops	275
Fishmongers' shops	186
Other shops and stores	282
	2,279

The following are particulars of the food stuffs condemned :—

ARTICLES CONDEMNED.	Number.	REASON FOR CONDEMNATION.
BEEF.		
Carcases and offal... ..	30	Generalised Tuberculosis
Portions of carcasses and organs ...	173	Localised Tuberculosis
" " " ...	77	Parasitic & other conditions
MUTTON AND LAMB.		
Carcases and offal	17	Febrile
" " "	6	Oedema
Portions of carcasses	11	Contusion
Organs	346	Parasitic conditions
PORK.		
Carcases and offal	10	Generalised Tuberculosis
" " "	6	Febrile
" " "	3	Oedema
" " "	2	Septicaemia
" " "	1	Erysipelas
" " "	2	Jaundice
Portions of carcasses	1	Contusion
Portions of carcasses and organs ...	58	Localised Tuberculosis
Organs	13	Parasitic conditions
VEAL.		
Carcase and offal	1	Scour
" " "	1	Joint ill
" " "	1	Immature
" " "	2	Generalized Tuberculosis
IMPORTED MEAT.		
Portions of Beef carcasses. ...	3	Bone Taint
Beef Suet	2	Decomposition
Frozen Eggs (tins of)	2	"
FISH.		
Plaice (boxes of)	1	"
Assorted Fish (boxes of)	24	"
Cod (consignments of)	4	"
Halibut (parcels of)	1	"
VEGETABLES.		
Cauliflowers (nets of)	14	"

Contagious Diseases of Animals Act.

TUBERCULOSIS (ANIMALS) ORDER, 1925.

Notices of intended slaughter of cattle were served in 22 cases. Post-mortem examination showed all to be affected with tuberculosis, and they were condemned. In eight of the cases the udder was found to be affected. The more or less advanced case of tuberculosis can now be dealt with, but the early case must still go undetected for lack of sufficient clinical knowledge.

There are 15 registered cowkeepers within the City, and those and the cattle kept have been inspected twice during the year. In cases of doubtful udders, samples of milk were sent to the John Elliot Laboratory at the Royal Infirmary for biological test, and in one instance the relative cow was condemned, slaughtered, and found to be affected with generalised tuberculosis. In seven instances there were sufficient clinical signs to condemn the animals, and all were subsequently found to be generally affected with tuberculosis. During the examination of cattle sent for sale at the local cattle sales 14 cows were found in such condition as to warrant the service of notice to slaughter. Postmortem examination proved all those animals also to be affected by generalised tuberculosis. As the result of clinical examination alone, 21 cows were condemned and all found to be tuberculous. Does this mean that the early or moderately early case is being missed? Probably it does, for early tubercle is not easy of detection. Even so, the danger is probably not great. So long as the udder is not affected the chance of tubercle bacilli being in the milk is not very great, and they are not at all likely to be present in large numbers.

Proceedings were taken against two cattle dealers for contravention of the Diseases of Animals Act, 1925, having had in their possession or charge cows which were suffering from tuberculous emaciation, and failing to give notice to the Local Authority. Eight and fourteen charges respectively were brought against them. They were convicted and fined £2 and costs in seven cases each. The fines and costs, subject to taxation, totalled £75 12s. 8d.

There were twenty-nine samples of milk submitted for biological test for the presence of the tubercle bacillus, including the 13 samples already mentioned, the remaining 16 being got from milk sellers in the City. In two cases the milk was found to be tuberculous, and as in both cases the milk was produced in the County the circumstances were sent to the County Medical Officer of Health. In one case the excess of pus in the milk led to the condemnation and slaughter of the animal, which was found to be tuberculous.

SALE OF FOOD AND DRUGS ACT, 1875-1907.

The following table sets out the articles of food submitted to the Public Analyst for analysis under the above Acts :—

Article.	No. not Genuine.	No. Genuine.	No. taken formally.	No. taken informally.	Totals.
Milk	3	50	49	4	53
Butter	1	9	10	...	10
Cream	1	7	8	...	8
Apples	6	...	...	6	6
Cheese	...	6	6	...	6
Sweets	...	4	4	...	4
Baking Powder	...	3	3	...	3
Lard	...	3	3	...	3
Lemon Squash	...	3	3	...	3
Margarine	...	3	3	...	3
Brawn	2	3	2	3	5
Gin	...	2	2	...	2
Sausages	...	2	...	2	2
Corned Beef	...	2	...	2	2
Rum	...	2	...	2	2
Whiskey	...	2	...	2	2
Black Currant Wine...	...	1	1	...	1
Green Ginger Wine...	...	1	1	...	1
Orange Squash	...	1	1	...	1
Rasin Wine	...	1	1	...	1
Raspberry Wine	...	1	1	...	1
Salmon Cream Paste	...	1	1	1	1
	13	107	98	22	120

Of the 107 samples examined, 13 were certified as not genuine, or 12.1 per cent. Last year the figure was 13.3 per cent. Three of the thirteen samples were milk, all of which were deficient in fat, the deficiency varying from 1.3 to 6.7 per cent. A prosecution was taken in one case, and a fine of £5 and costs of £2 11s. od. was obtained. The others were warned. Two samples of brawn contained boric acid, but as they were taken informally, and subsequent samples were found to be genuine, no proceedings were taken.

A sample of cream also contained boric acid, and the seller was warned.

A sample of butter had an excess of 2.3 per cent. of water, and on proceedings being taken, the case was dismissed on payment of costs.

Six samples of apples were found to contain traces of arsenic, varying from 1/150 grain to 1/700 grain per pound. As the quantity of arsenic found was less than 1/100 grain no proceedings were taken.

The following Table gives particulars in respect of samples certified to be not genuine and the action taken :—

No. of Sample.	Name of Article.	Result of Analysis.	Result of Legal Proceedings or action taken by the Public Health Committee.
10	Milk ..	Deficient in 1·3 % of fat ..	The vendor received a warning letter.
31	Apples ..	Contained 1/350th grain of arsenic per lb.	As the amount of arsenic was less than 1/100th grain per lb., the prescribed limit, no action was taken in respect of these samples
32	Apples ..	Contained 1/700th grain of arsenic per lb.	
33	Apples ..	Contained 1/500th grain of arsenic per lb.	
34	Apples ..	Contained 1/500th grain of arsenic per lb.	
45	Apples ...	Contained 1/250th grain of arsenic per lb.	
46	Apples ..	Contained 1/500th grain of arsenic per lb.	The vendor received a warning letter.
43	Cream ..	Contained 0·29 % of boric acid	
56	Milk ..	Deficient in 6·7 of fat. ..	Proceedings instituted. Defendant fined £5 and £2 11s. costs. A previous conviction had been recorded against the defendant.
57	Milk ..	Deficient in 2·6 of fat. ..	A warning was issued to the vendor.
74	Brawn..	Contained 0·006 % of boric acid	These samples were informally obtained and subsequent formal samples were found free from preservatives.
75	Brawn ..	Contained 0·024 % of boric acid	
95	Butter ..	Contained 2·3 % of water in excess of the standard	Proceedings instituted. The case was dismissed, but the defendant was ordered to pay 19/6 costs.

PUBLIC HEALTH (MILK AND CREAM) REGULATIONS, 1912 — 1917.

Report for the year ended 31st December, 1927.

1. Milk and Cream not sold as Preserved Cream :—

	(a) No. of samples examined for the presence of a preservative.	(b) No. in which preservative was reported to be present.
Milk	53	Nil
Cream	3	1

Nature of preservative in each case in column (b) and action taken under the Regulations in regard to it—boric acid, 0·29 per cent.

A warning letter was sent to the vendor of the sample.

2. Cream sold as Preserved Cream :—

(a) Instances in which samples have been submitted for analysis to ascertain if the statements on the label, as to preservative, were correct—

- (i) Correct statements made 5
 (ii) Incorrect statements made Nil
 (iii)

No. of Sample.	Percentage of Preservative found in each sample.	Percentage stated on Statutory Label.
41	0·29 %	} Not exceeding 0·4 % Boric Acid.
42	0·31 „	
44	0·33 „	
61	0·25 „	
62	0·30 „	

(b) Determinations made of milk fat in cream sold as preserved cream

- (i) above 35 per cent. 5
 (ii) below 35 per cent. Nil

(c) Instances where, apart from analysis, the requirements as to labelling or declaration of preserved cream in Article V. (1) and the proviso in Article V. (2) of the Regulations have not been observed Nil

(d) Particulars of each case in which the Regulations have not been complied with and action taken ... Nil

3. Thickening substances—any evidence of their addition to cream or preserved cream: action taken where found Nil

4. Other observations, if any Nil

PUBLIC ANALYST'S REPORT.

The following is the report of the City Analyst :—

Laboratory, Assay Office,
 Chester, February 24th, 1928.

To the Chairman and Members of the Public Health Committee
 of the Chester City Council.

SALE OF FOOD AND DRUGS ACTS.

Ladies and Gentlemen,

I have the honour to inform you that during the year ended 31st December, 1927, 99 formal and 21 informal samples were received for

analysis. The articles consisted of 53 samples of milk, 10 of butter, 8 of cream, 6 of cheese, 6 of American apples, 5 of brawn, 4 of sweets, 3 of lard, 3 of margarine, 3 of baking powder, 2 of corned beef, 2 of sausages, 2 of whisky, 2 of gin, 2 of rum, 3 of lemon squash, and 1 each of ginger wine, orange squash, blackcurrent wine, raspberry wine, raisin wine and salmon cream.

Three samples of milk and one of butter were found to be adulterated. The milk samples were deficient in fat (cream), and the butter contained an excess of water above the 16 per cent. standard. A prosecution was instituted in the case of one of the milk samples, and a fine of £5 and £2 costs was inflicted.

All the samples of milk were free from preservatives, from dirty sediment, and from artificial colouring.

Two samples of butter contained boric acid to the extent of 13.3 grain and 12.6 grain per lb. respectively. The other samples were free from preservatives, as were also the samples of margarine.

Some samples of fresh butter bought in Chester Market were found to be below the official test for the purity of butter fat, but as in other respects they appeared to be genuine, a fuller analysis of the fat confirmed this opinion. In order further to confirm this a gallon of milk was obtained from the farm where one of the Market samples had been made. This milk was churned in the laboratory and the butter obtained analysed. The results of the analysis of this butter were identical with those of the sample bought in the Market. Similar observations of the occasional abnormal composition of butter fat have been made previously, but judging from the reports of some of the prosecutions for the adulteration of butter they do not appear to be generally known.

All the six samples of American apples contained slight traces of arsenic, but as the highest amount present was only 1/150 grain per lb. there is not likely to be any danger in their use.

Preservatives in the form of sulphur dioxide (as sulphites) were found in all the samples of lemon squash, in orange squash, green ginger wine, and raspberry wine, and in the form of benzoic acid in the raisin wine, and blackcurrent wine. These, however, are permissible preservatives for the above articles, and the amounts present were well within the limit allowed.

The sweet samples were free from arsenic and poisonous metals, and from injurious dyes.

Five of the cream samples were sold as preserved cream : they contained boric acid, but the amount was within the limit allowed (28 grains per lb.) at the time they were bought. Two of the samples were tinned cream and were of very poor quality, as they contained only 21 per cent. and 22 per cent. of fat, whilst fresh cream as sold in the shops contains 50 per cent. to 60 per cent. of fat. There should certainly be some standard for the amount of fat in tinned cream, for at present the amount is usually under 25 per cent.

The cheese samples were satisfactory : they had been made from whole milk, and contained the full proportion of fat.

The samples of corned beef, brawn, and sausages were free from preservatives, as was also the sample of salmon cream.

The new Regulations relating to Preservatives in Food are already having a good effect, especially in preventing the use of boric acid, which was becoming more and more prevalent, so that a person would frequently take small quantities of boric acid in half a dozen and more articles of food in a single day.

The results for the year may be considered satisfactory.

Yours faithfully,

W. F. LOWE,

City Analyst.

ANALYSES.										ADULTERATED SAMPLES, &c.			
Article.	Number Examined.				Number Adulterated, &c.				Serial No.	Article.	Whether Formal, Informal, or Private.	Nature of Adulteration or Irregularity.	Observations.
	Formal	Informal	Private	Total	Formal	Informal	Private	Total					
Milk ...	50	3		53	3			3	10	Milk	Formal	— 1'3 % fat	Fine £5 Costs £2
Butter ...	10	—		10	1			1	56	Do.	Do.	— 6'7 % Fat	
Lard ...	3	—		3						Do.	Do.	— 2'6 % fat	
Margarine ...	3	—		3					57	Do.	Do.	× 2'3% water	
Cheese ...	6	6		6					95	Butter	Do.		
Apples...	—	—		—									
Baking Powder	3	—		3									
Corned Beef ...	—	2		2									
Brawn ...	2	3		5									
Green Ginger Wine ...	1	—		1									
Orange Squash	1	—		1									
Raisin Wine ...	1	—		1									
Lemon Squash	3	—		3									
Cream ...	8	—		8									
Salmon Cream Paste...	—	1		1									
Sausages ...	—	2		2									
Sweets...	4	—		4									
Black Currant Wine ...	1	—		1									
Raspberry Wine	1	—		1									
Whisky ...	—	2		2									
Rum ...	—	2		2									
Gin ...	2	—		2									
Total ...	99	21		120	4								
(Signed) W. F. LOWE, A.R.S.M., F.I.C.; City Analyst.													

(Signed) W. F. LOWE, A.R.S.M., F.I.C.;
City Analyst.

Prevalence and Control over Infectious Diseases.

During the year, there were 671 cases of notifiable infectious disease brought to the notice of the department. This is rather less than half the number of the previous year. The difference is mostly due to the prevalence of a serious epidemic of measles in 1926, which produced 1.070 notifications in that year. This had died down by the present year, when only 37 cases were notified. It is again becoming prevalent. There were no deaths from this cause in 1927, but in 1926 there were 8, a case mortality of 0.74 per cent.

By the end of 1926, whooping cough was becoming epidemic, and had produced 145 cases: in 1927 notifications were received of 247 cases. There were two deaths in 1926, a case mortality of 1.38, and in 1927, 13 deaths and case mortality of 5.26. Whooping cough was much the most fatal infectious disease of childhood. Eleven of the 13 deaths were under two years of age. In the hope of reducing the mortality, 30 cases were admitted to the Isolation Hospital. They were all very severe or complicated. Of those 30, four died, giving a case mortality of 13.3. This is much above the average case mortality, but they were all so seriously ill that few had much chance of life if nursed at home.

Diphtheria was equally prevalent, or rare as in the previous year, 25 cases having been notified. There was one death. On the whole, the cases are mild, but the mildness leads to long delay in notification, with consequent evil results of toxæmia. Some form of paralysis is fairly common, but has been slight and has not caused anxiety. The Shick test has not been introduced owing to the low prevalence of the disease.

Scarlet fever has been somewhat less prevalent than last year, 57 cases having been notified, being 40 less than in the previous year. Here again the disease has been mild, giving great trouble in diagnosis but none in treatment. Beyond a few cases of otorrhœa, or slight adenitis, complications are rare. I have had no occasion to use the specific serum.

Enteric fever was notified 6 times, two fewer than the previous year. Three of the cases were definitely connected with cases occurring in 1926. The source of infection was not traced in the other three. There were no deaths.

Encephalitis lethargica was notified three times. In one the notification was received on the day of death, and the history of the case left room for doubt. In one other, there was very little history of illness. and so far no sequelæ.

Smallpox was notified once. The case was that of an unvaccinated boy, the son of a man exposed indirectly to infection. He made a good recovery.

The Medical Officer, in connection with this case, vaccinated or re-vaccinated 15 persons. The hospital staff is kept in a revaccinated condition, and immunised against typhoid and para typhoid.

In the prevention of infectious disease, an endeavour is always made to trace the source of infection, which is seldom successful in scarlet fever and diphtheria. Isolation is strictly carried out. In hospital the period of detention has been gradually shortened in the case of scarlet fever, and in the absence of any discharge from ears or nose and with a throat apparently normal the period of stay seldom exceeds five weeks.

This in some cases I feel could be still further reduced, but the difficulty is in saying when a throat with probably enlarged or ragged tonsils is free from infection. In the case of diphtheria noses and throats are tested bacteriologically, and if negative and no sign of paralysis present the patient is discharged in about a month. If a positive swab is got during the end of convalescence two consecutive negative swabs are required before discharge. Diphtheria antitoxin is supplied free to necessitous patients, but the arrangement is seldom taken advantage of.

ISOLATION HOSPITAL.

Two hundred and thirty-six patients were admitted to the hospital during the year. Of those, 153 belonged to the City and 83 to outside authorities.

The following table sets out the admissions to hospital during the year :—

	Tuber- culous Disease.	Scarlet Fever.	Diph- theria.	Typhoid Fever.	Puer- peral Fever and Pyrexia.	Whoop- ing Cough.	Measles	Small- pox.	Other Con- ditions.	Total.
Chester ...	32	53	24	2	1	30	...	1	10	153
County ...	16	...	...	...	...	...	...	...	...	16
Chester R.D.C.	...	22	4	1	...	1	...	...	1	29
Tarvin and Malpas	...	17	7	1	...	...	...	...	...	25
Hoole ...	...	7	1	...	...	...	...	...	...	8
Other Local Authorities	...	1	3	...	...	...	1	...	...	5
Total ...	48	100	39	4	1	31	1	1	11	236

There were 19 deaths, 11 from tuberculous diseases (3 from County), 4 from diphtheria, (3 from outside authorities), 4 from whooping cough.

The year's notifications of infectious disease are given in the following table, the deaths being given in brackets:—

NOTIFICATIONS OF INFECTIOUS DISEASES, 1927.

DISEASE	Under 1 year.	1 and under 2.	2 and under 3.	3 and under 4.	4 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 35.	35 and under 45.	45 and under 65.	65 and over.	Total cases.	Cases admitted to Hospital.
Small Pox ...	0	0	0	0	0	1	0	0	0	0	0	0	1	1
Diphtheria ...	0	0	1 (1)	0	1	8	9	0	3	2	1	0	25 (1)	25
Scarlet Fever ...	0	1	2	3	5	35	5	2	3	1	0	0	57	51
Enteric Fever ...	0	0	0	0	0	0	2	0	3	1	0	0	6	4
Pneumonia ...	8 (4)	12 (5)	4 (2)	4 (1)	5	18 (2)	5 (2)	10 (1)	17 (4)	7 (2)	17 (14)	3 (6)	110 (41)	41
Erysipelas ...	0	0	0	0	1	0	0	0	2	1	2	0	6	0
Puerperal Fever ...	0	0	0	0	0	0	0	0	2 (1)	0	0	0	2 (1)	2
Puerperal Pyrexia ...	0	0	0	0	0	0	0	0	7	0	0	0	7	2
Acute Poliomyelitis ...	1	1	0	0	0	0	0	0	0	0	0	0	2	2
Chicken Pox ...	3	4	3	8	10	111	10	8	3	1	1	0	162	0
Malaria ...	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ophthalmia Neonatorum ...	6	0	0	0	0	0	0	0	0	0	0	0	6	2
Encephalitis Lethargica ...	0	0	0	0	0	0	0	1	0	1 (1)	1	0	3 (1)	1
Cerebro Spinal Fever... ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles ...	5	3	4 (1)	3 (1)	3	17	2	0	0	0	0	0	37	0
Whooping Cough ...	34 (5)	36 (6)	29	29 (1)	28 (1)	85	3	2	1	0	0	0	247 (13)	30

Deaths shown in brackets.

Particulars of new cases of tuberculosis and mortality during 1927 are given below :—

Age Periods.	NEW CASES.				DEATHS.			
	Pulmonary		Non-Pulmonary.		Pulmonary.		Non-Pulmonary.	
	Males	Females	Males	Females	Males	Females	Males	Females
0 ...	0	0	0	0	0	1	0	0
1 to 5...	1	1	5	0	1	1	0	0
5 to 10	0	0	1	2	0	1	0	0
10 to 15	2	2	1	1	0	1	0	0
15 to 20	0	1	2	0	1	1	0	1
20 to 25	2	3	1	0	2	3	0	0
25 to 35	4	10	0	0	4	4	0	1
35 to 45	7	1	0	0	7	2	0	0
45 to 55	8	5	0	0	6	4	0	0
55 to 65	4	1	0	0	4	0	0	0
65 and upwards	0	0	0	0	0	0	0	0
Totals ...	28	24	10	3	25	18	0	2

PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.

There has been no occasion to act on this regulation.

PUBLIC HEALTH ACT, 1925, SECTION 62.

So far there has been no occasion to put this Section into force.

CITY & COUNTY OF THE CITY OF CHESTER.—Causes of, and Ages at Death during the Year 1927.

CAUSES OF DEATH.		NET DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WITHOUT THE DISTRICT.										WHETHER OCCURRING WITHIN OR			
		At all Ages.	Under 1 year.	1 and under 2.	2 and under 3.	3 and under 4.	4 and under 5.	5 and under 10.	10 and under 15.	15 and under 20.	20 and under 35.	35 and under 45.	45 and under 65.	65 and up-wards.	
All causes	{ Certified ... Uncertified	...	...	...	...	...	...	...	...	...	...	...	...	...	
1	Enteric Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	
2	Small Pox	...	...	...	...	...	...	...	...	...	...	...	...	...	
3	Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	
4	Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	
5	Whooping Cough	13	5	6	...	1	1	...	...	...	...	...	...	...	
6	Diphtheria and Croup	1	1	...	1	...	...	...	...	...	...	...	...	...	
7	Influenza	18	1	...	...	...	...	1	...	...	...	...	7	9	
8	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	
9	Phthisis (Pulmonary Tuberculosis)	43	1	1	1	...	1	1	1	2	13	9	14	...	
10	Tuberculous Meningitis	1	...	...	...	...	...	...	...	1	...	...	...	...	
11	Other Tuberculous Disease	1	...	...	...	...	...	...	...	...	1	...	...	...	
12	Cancer, Malignant Disease	56	...	...	...	...	...	...	...	...	1	3	31	21	
13	Rheumatic Fever	2	...	...	...	...	...	1	...	...	...	...	1	...	
14	Meningitis	2	1	...	1	...	...	...	...	...	...	...	...	...	
15	Organic Heart Disease	59	...	...	...	...	...	...	...	1	...	1	24	32	
16	Bronchitis	51	3	1	...	...	...	...	...	1	1	2	5	38	
17	Pneumonia (all forms)	41	4	3	2	1	...	2	2	1	4	2	14	6	
18	Other Diseases of Respiratory Organs	5	1	...	...	...	...	...	...	...	...	1	3	...	
19	Diarrhoea and Enteritis	2	2	...	...	...	...	...	...	...	...	...	...	...	
20	Appendicitis and Typhlitis	3	...	...	...	...	...	...	...	...	1	...	...	2	
21	Cirrhosis of Liver	1	...	...	...	...	...	...	...	...	...	...	1	...	
22a	Alcoholism	1	...	...	...	...	...	...	...	...	...	...	...	...	
22	Nephritis and Bright's Disease	8	...	...	...	...	...	...	...	...	...	...	1	...	
23	Puerperal Fever	1	...	...	...	...	...	...	...	...	...	...	1	...	
24	Other Accidents & Diseases of Pregnancy & Parturition	...	...	...	...	...	...	...	...	...	3	1	1	3	
25	Congenital Debility and Malformation, including Premature Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	
26	Violent Deaths, excluding Suicide	18	17	1	...	...	...	...	...	...	...	...	...	...	
27	Suicide	21	2	2	1	1	...	...	1	1	5	1	3	4	
28	Other Defined Diseases	4	...	...	...	...	...	...	...	...	1	2	1	...	
29	Diseases ill-defined or unknown	171	12	1	...	2	1	1	1	4	3	9	37	100	
	Totals	526	49	15	6	5	2	6	5	10	37	31	145	215	

Infant Mortality during the Year 1927.

CAUSES OF DEATH	Under 1 Week	1-2 Weeks	2-3 Weeks	3-4 Weeks	Total Deaths 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Months	Total Deaths under 1 Year
All Causes { Certified. { Uncertified.	13 ..	2 ..	2 ..	2 ..	19 ..	4 ..	10 ..	8 ..	8 ..	49 ..
Small-pox ..	..	..	..	..	..	..	..	..	..	..
Chicken-pox ..	..	..	..	..	..	..	..	..	..	..
Measles ..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..
Whooping Cough ..	..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup ..	..	..	..	..	..	..	..	..	..	..
Erysipelas ..	..	..	..	..	..	..	..	..	..	..
Tuberculous Meningitis ..	..	..	..	..	..	..	..	..	..	..
Abdominal Tuberculosis (b) ..	..	..	..	..	..	..	..	..	..	..
Other Tuberculous Diseases ..	..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous) ..	..	..	..	..	..	..	..	..	..	..
Convulsions ..	3	..	..	1	4	..	1	..	1	6
Laryngitis ..	..	..	..	..	..	..	..	..	..	..
Bronchitis ..	..	..	..	..	..	..	..	..	..	..
Pneumonia (all forms) ..	..	..	..	..	..	..	..	..	..	..
Diarrhoea ..	..	..	..	..	..	..	..	..	..	..
Enteritis ..	..	..	..	..	..	..	..	..	..	..
Gastritis ..	..	..	..	..	..	..	..	..	..	..
Syphilis ..	..	..	..	1	1	..	..	..	..	..
Rickets ..	..	..	..	..	..	..	..	..	..	..
Suffocation, Overlying ..	..	..	..	..	..	..	..	..	..	..
Injury at Birth ..	1	..	..	..	1	..	..	..	..	..
Atelectasis ..	2	..	..	..	2	..	..	..	..	..
Congenital Malformations (c) ..	..	..	..	..	..	..	..	..	..	..
Premature Births ..	6	..	..	..	6	..	..	..	..	..
Atrophy, Debility and Marasmus ..	..	..	2	..	2	..	2	..	..	..
Other Causes ..	1	2	..	..	3	..	2	4	1	10
Totals ..	13	2	2	2	19	4	10	8	8	49

Nett Births in the year, legitimate, 660; illegitimate, 37.

Nett Deaths in the year of legitimate infants, 42; illegitimate infants, 7.

Vital Statistics of Whole District during 1926 and previous years.

YEAR	Population estimated to Middle of each Year	BIRTHS		TOTAL DEATHS REGISTERED IN THE DISTRICT		TRANSFERABLE DEATHS		NETT DEATHS BELONGING TO THE DISTRICT				
		Un- corrected Number	Nett	Number †	Rate	Of Non- residents registered in the District	Of Resi- dents not registered in the District	Under 1 Year of Age		At all Ages		
								Number †	Rate per 1000 Nett Births	Number †	Rate	
1	2	3	4	5	6	7	8	9	10	11	12	13
1918	40,718 (B) 40,218 (D)	744	744	22.65	680	18.67	119	112	67	90.05	673	16.66
1919	42,464 (B) 40,764 (D)	759	759	17.87	562	13.78	97	84	64	84.32	549	13.47
1920	42,571 (B) 42,388 (D)	1072	1091	25.62	543	12.81	94	70	75	68.7	519	12.24
1921	41,407	882	895	21.63	595	14.36	91	81	79	88.26	585	14.12
1922	41,451	897	865	20.86	608	14.66	113	77	68	78.6	572	13.79
1923	41,610	829	800	19.22	600	14.41	132	78	69	86.2	546	13.12
1924	41,932	835	816	19.46	578	13.78	116	115	73	89.46	577	13.76
1925	41,922	869	851	20.30	593	14.12	155	128	61	71.6	566	13.5
1926	41,913	873	836	19.94	569	13.31	136	113	67	80.0	546	13.0
1927	42,200	764	697	16.51	552	13.08	139	113	49	70.30	526	12.46

Area of District in acres (land and inland water), 2,862.

No. of inhabited houses, 9,063.

Average No. of persons per house, 4.65.

* Total deaths occurring in Chester whether of residents or non-residents.

† Births and deaths corrected for those births and deaths properly belonging to Chester, but occurring outside the District, or occurring in the District but properly belong outside.

Administration of the Factory and Workshop Acts, 1901 & 1907

IN CONNECTION WITH

Factories, Workshops, Laundries, Workplaces, and
Homework.

1. INSPECTION.

INCLUDING INSPECTIONS MADE BY SANITARY INSPECTORS OR INSPECTORS OF
NUISANCES.

Premises. (1)	Number of		
	Inspections (2)	Written Notices (3)	Prosecutions (4)
Factories (including Factory Laundries) ...	20	3	—
Workshops (including Workshop Laundries) ...	187	10	—
Workplaces (other than Outworkers' premises) ...	14	—	—
Total	221	13	—

2. DEFECTS FOUND.

Particulars. (1)	No. of Defects.			Number of Prosecu- tions. (5)
	Found (2)	Remed'd (3)	Referred to H.M. Insp-ct'r (4)	
Nuisances under the Public Health Acts—				
Want of Cleanliness	12	12	—	—
Want of Ventilation	—	—	—	—
Overcrowding	2	2	—	—
Other Nuisances	1	1	—	—
Sanitary accommodation { insufficient	—	—	—	—
unsuitable or defective	4	4	—	—
not separate for sexes	—	—	—	—
Offences under the Factory & Workshop Act :				
Other Offences	8	8	—	—
Total	27	27	—	—

OUTWORK IN UNWHOLESOME PREMISES.

SECTION 108.

Nature of Work. (1)	Instances. (2)	Notices Served. (3)	Prosecutions. (4)
Wearing Apparel.—			
Making, &c, ...	Nil	Nil	Nil
Cleaning and Washing	"	"	"

